IN THE CLAIMS:

Each of the claims that remains pending and under consideration in the above-referenced application is reproduced below, in clean form, for the sake of convenience. A marked-up version of each amended claim is also enclosed herewith to show the changes that have been made to each such claim.

Please cancel claims 1-20 without prejudice or disclaimer.

Please enter the claims as follows:

Sub B1

21. (Amended) An assay system for analyzing a biological liquid sample, comprising:

a light source;

a waveguide having at least one planar surface having capture molecules for at least one indicator of coronary artery disease associated therewith;

a first member associated in liquid tight attachment with said at least one planar surface of said waveguide, wherein said first member, in conjunction with said waveguide, defines at least one reaction area for containing the biological liquid sample while said at least one planar surface of said waveguide defines a floor or ceiling of said at least one reaction area;

a light detector for detecting evanescent light passed through said planar surface and generating an intensity signal indicating an intensity of said detected light; and

a controller for monitoring said intensity signal and correlating said intensity signal to a concentration of said at least one indicator of coronary artery disease in the liquid biological sample.

22. The assay system of claim 21, wherein said waveguide is optically associated with a rear lens oriented for reading light from said light source passing through said waveguide, to monitor coupling efficiency and beam quality.

23. The assay system of claim 21, wherein said capture molecules include capture molecules that bind with at least a portion of least one of a troponin, creatine kinase, or myoglobin molecule or complex.

24. The assay system of claim 21, wherein said at least one reaction area comprises a reservoir.

25. The assay system of claim 21, wherein said at least one reaction area comprises a well.

Please add the following new claims:

-- 26. (New) The assay system of claim 21, wherein said controller is configured to effect said correlating in a substantially continuous fashion.

27. (New) The assay system of claim 26, wherein said controller is configured to effect said monitoring and said correlating until a reliable determination is made of whether said at least one indicator of coronary artery disease is present in an amount indicative of coronary artery disease.

28. (New) The assay system of claim 27, wherein said controller is configured to output a signal that effects reporting of said reliable determination.

29. (New) The assay system of claim 21, wherein said controller is configured to effect said monitoring and said correlating until a reliable determination is made of whether said at least one indicator of coronary artery disease is present in an amount indicative of coronary artery disease.

30. (New) The assay system of claim 29, wherein said controller is configured to output a signal the effects reporting of said reliable determination.

31. (New) The assay system of claim 21, wherein said controller is configured to substantially simultaneously determine concentrations of a plurality of indicators of coronary artery disease.

32. (New) The assay system of claim 21, wherein said capture molecules comprise capture molecules that bind with at least a portion of at least one ischemic marker or at least one complex that includes at least one ischemic marker.

33. (New) The assay system of claim 21, wherein said capture molecules comprise capture molecules that bind with at least a portion of at least one marker released from cardiac tissue only after a myocardial infarction or at least one complex that includes marker released from cardiac tissue only after a myocardial infarction.

34. (New) An assay system for analyzing a biological liquid sample, comprising:

a light source;

a waveguide having at least one planar surface having capture molecules for at least one indicator of coronary artery disease associated therewith;

a first member associated in liquid tight attachment with said at least one planar surface of said waveguide, wherein said first member, in conjunction with said waveguide, defines at least one reaction area for containing the biological liquid sample while said at least one planar surface of said waveguide defines a boundary of said at least one reaction area;

a light detector for detecting radiation indicative of an amount of said at least one indicator of coronary artery disease present in the biological liquid sample, said light detector configured to generate an intensity signal indicating an intensity of said detected light; and

a controller for monitoring said intensity signal and correlating said intensity signal to a concentration of said at least one indicator of coronary artery disease in the liquid biological sample.

35. (New) The assay system of claim 34, wherein said waveguide is optically associated with a rear lens oriented for reading light from said light source passing through said waveguide, to monitor coupling efficiency and beam quality.

36. (New) The assay system of claim 34, wherein said capture molecules include capture molecules that bind with at least a portion of least one of a troponin, creatine kinase, or myoglobin molecule or complex.

37. (New) The assay system of claim 34, wherein said at least one reaction area comprises a reservoir.

38. (New) The assay system of claim 34, wherein said at least one reaction area comprises a well.

39. (New) The assay system of claim 34, wherein said controller is configured to effect said correlating in a substantially continuous fashion.

40. (New) The assay system of claim 39, wherein said controller is configured to effect said monitoring and said correlating until a reliable determination is made of whether said at least one indicator of coronary artery disease is present in an amount indicative of coronary artery disease.

41. (New) The assay system of claim 40, wherein said controller is configured to output a signal that effects reporting of said reliable determination.

42. (New) The assay system of claim 34, wherein said controller is configured to substantially simultaneously determine concentrations of a plurality of indicators of coronary artery disease.

43. (New) The assay system of claim 34, wherein said capture molecules comprise capture molecules that bind with at least a portion of at least one ischemic marker or at least one complex that includes at least one ischemic marker.

44. (New) The assay system of claim 34, wherein said capture molecules comprise capture molecules that bind with at least a portion of at least one marker released from cardiac tissue only after a myocardial infarction or at least one complex that includes marker released from cardiac tissue only after a myocardial infarction.--